

Amendments to the Claims:

1. (Currently Amended) A telemetry unit for a tire monitoring apparatus, the telemetry unit including a housing having sensor means for measuring data relevant to the local environment of the telemetry unit, transmission means for transmitting measured data to a remote location, a piezoelectric power generator adapted to generate and store an electrical charge in response to rotation of the tire for powering the unit, and control means for controlling the sensor means and transmission means, in which the control means is arranged to vary the rate of transmission of data from the telemetry unit in dependence on the rotary speed of the tire, and wherein the piezoelectric power generator is arranged to produce at least one pulse of electric charge for each rotation of the tire, and the control means is adapted to monitor the number and/or frequency of the pulses generated in order to determine the appropriate rate of transmission of data.

2. (Canceled)

3. (Currently Amended) A telemetry unit as claimed in claim [[2]] 1, wherein the control means is adapted to initiate monitoring of the local environment and transmission of measured data after a predetermined number of pulses has been detected.

4. (Previously Presented) A telemetry unit as claimed in claim 1, in which the housing is adapted to be mounted to an inner wall of a tire.

5. (Previously Presented) A telemetry unit as claimed in claim 1, in which an exterior surface of the housing has a substantially arcuate profile adapted for bonding to an arcuate interior surface of a vehicle tire.

6. (Previously Presented) A telemetry unit as claimed in claim 1, in which an exterior surface of the housing includes an external profile for complimentary engagement with the internal pattern of a vehicle tire.

7. (Previously Presented) A telemetry unit as claimed in claim 1, in which the housing is releasably mounted on a footing adapted to be bonded to the internal wall of a tire.
8. (Original) A telemetry unit as claimed in claim 7, in which the housing is releasably mounted on the footing by means of clips.
9. (Previously Presented) A telemetry unit as claimed in claim 7, in which the footing includes air channels for allowing movement of air about the housing, in use.
10. (Previously Presented) A telemetry unit as claimed in claim 1, in which the sensor means includes at least one of a pressure sensor and/or a temperature sensor.
11. (Previously Presented) A telemetry unit as claimed in claim 1, in which an actuator is movable mounted in the housing and adapted for contact with the piezoelectric element under centrifugal forces.
12. (New) A telemetry unit for a tire monitoring apparatus, the telemetry unit including a housing having at least one sensor for measuring data relevant to the local environment of the telemetry unit, a transmitter for transmitting measured data to a remote location, a piezoelectric power generator adapted to generate and store an electrical charge in response to rotation of the tire for powering the unit, and control circuitry for controlling said at least one sensor and the transmitter, in which the piezoelectric power generator includes a piezoelectric element, and at least one of the control circuitry, transmitter, and sensor contributes as a mass for influencing deflection of the piezoelectric element.
13. (New) A telemetry unit according to claim 12, wherein the telemetry unit includes a base intended to be mounted adjacent the wall of a tire and wherein at least one of the control circuitry, transmitter, and sensor is arranged so as to be radially inward of the piezoelectric element when said unit is located with the base adjacent the tire wall.

14. (New) A telemetry unit for a tire monitoring apparatus, the telemetry unit including a housing having at least one sensor for measuring data relevant to the local environment of the telemetry unit, a transmitter for transmitting measured data to a remote location, a piezoelectric power generator adapted to generate and store an electrical charge in response to rotation of the tire for powering the unit, and control circuitry for controlling said at least one sensor and the transmitter, in which the piezoelectric power generator includes a piezoelectric element, the telemetry unit includes a base intended to be mounted adjacent the wall of a tire, and wherein at least one of the control circuitry, transmitter, and sensor is arranged so as to be radially inward of the piezoelectric element when said unit is located with the base adjacent the tire wall.

15. (New) A telemetry unit according to claim 14, wherein at least one of the control circuitry, transmitter, and sensor contributes as a mass for influencing deflection of the piezoelectric element.